As indicated in last week, I start developing the command system for my game to support data communication between different game entities. Although the engine's delegate function provides similar utility, but the advantages of building the system myself is that it can be fully extended to have more functionalities in future (rather than just system to send message), as I want to continue developing this game in later studio. Another big advantage is that when the game has multiple entities need to talk to each other (which can be my case), this is system will pay dividends as I am likely to write less codes than using the delegates as the size of game grows, which also makes the code base more organizable. After some research and tests I built a 'CommandKeyStroke' class that supports the communication between the 'Playerpawn' class and the 'PianoKey' class – the PlayerPawn will send a message to the Command class that tells it which key is pressed in the keyboard, then the Command class will ask the PianoKey class to play the corresponding sound of that key input. The PianoKey class simply holds all audio assets of piano key and ready to be commanded by the Command class.

Code walk-through: https://www.youtube.com/watch?v=C8UJup-h-FI this is a relatively more completed version of code I recorded later.